

REMARKS

The present communication responds to the Office Action dated January 30, 2006.

Allowable Subject Matter

In the Office Action, the Examiner indicated that claims 6, 12-14 and 21 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. § 112, second paragraph, as set forth in the Office Action and to include all of the limitations of the base claim and any intervening claims.

Claim 1 has been rewritten to include the limitations of claim 12. Claims 2-5, 7, 11, 15, 19, and 20 depend either directly or indirectly from claim 1. As claim 1 now includes all the limitations of a claim indicated to be allowable, claims 1-5, 7, 11, and 15 are in condition for allowance.

Claims 6, 13, and 21 have been rewritten in independent form. Claim 14 depends from claim 13. Accordingly, each of claims 6, 13, 14, and 21 are in condition for allowance.

Rejections under 35 U.S.C. § 102

Claim 16 was rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Pat. 4,300,554 (“Hessberg”). Claim 16 has been rewritten to make it clear that the flexible force transferring means comprises a cylindrical coil spring. Hessberg does not disclose such a flexible force transferring means. Claim 17 depends from claim 16. Thus, claims 16 and 17 are in condition for allowance.

New claim 22 has been added including the limitations of claim 3. Claim 3 was rejected under 35 U.S.C. § 102(b) as being anticipated by Hessberg. This rejection is traversed at least for the following reasons.

The Examiner asserts that the Hessberg device includes “a drive mechanism (19, 22, 26, 31, 32) and a restoring means (16) located inside the drive mechanism (element 31 of drive mechanism).” *Office Action, page 3*. While Hessberg may broadly disclose an intricate drive

mechanism comprising very large number of parts, the applicants respectfully assert that "the drive mechanism (19, 22, 26, 31, 32)" does not teach a drive wheel with a flexible force transferring means coupled to a lateral facing area of the drive wheel, as recited by new claim 22.

Element 19 of the Hessberg device is a partly geared disk. Element 22 of the Hessberg device is a second disk. Element 26 of Hessberg is a geared segment of disk 24 – a third spiral disk. Element 31 of the Hessberg device is a sprocket on shaft 17. Element 32 of the Hessberg device is, generally, "additional elements of transmission." Each of these elements is described in the workings of the Hessberg device:

A helical and partly geared disk 19 is fixedly connected to cover 5 so that it rotates on shaft 6,13 when the cover is rotated. The helical shaped and partly geared disk 19 has a laterally positioned pin 20 which extends through an arcuate slot 21 in a second disk 22. Second disk 22 is only rotatable through a small angle alpha (FIG. 7). A circumferentially located radial recess 23 is provided in second disk 22. A third spiral disk 24, which is partly geared, is positioned coaxial to the two disks 19 and 22. An arcuate slot 25 is formed in disk 24 slightly longer than the arcuate slot 21 in disk 22. The pin 20 on disk 19 also extends into the slot 25. As the cover 5 is pivoted for winding the clockwork, the pin 20 rotates the disk 24 and its geared segment 26 transmits the pivoting movement of the cover 5 by sprocket wheel 28 (FIG. 3) to the shaft 17 bearing both spiral tension springs 8 and 16. Each time the cover 5 is pivotally opened, the cover is prevented from being returned to the closed position by the spring-loaded ratchet 29 which engages both the geared or toothed portion of disk 19 and the recess 23 in disk 22. The ratchet 29 is disengaged by the cam surface 30 of disk 22 only by pivoting the cover 180° and simultaneously but inherently completely winding both coil springs 8 and 16. Only after that is done can the cover be freely pivoted back into the housing closing position. The rotary movement of disk 22 through a small angle alpha (FIG. 7) is possible because the arcuate slot 25 in disk 24 is slightly longer than the arcuate slot 21 in disk 22.

The force exerted by the coil spring 16 of the feed mechanism is transmitted to sprocket 31 on shaft 17 which engages a drive transmission 32, shown in phantom in FIGS. 2 and 3, to escape wheel 50, sprocket 60, and, by additional elements of transmission 32, a pinion gear 33 which engages gear rack 34. Gear rack 34 has an arm 4 which presses against the end of piston or plunger 3A of injection syringe 3. *Hessberg, column 5, lines 29-65.*

Hessberg does not disclose or teach a drive wheel with a flexible force transferring means coupled to a lateral facing area of the drive wheel, as recited by new claim 22. At best, Hessberg teaches a plurality of drive wheels. Referring to Figure 2 of Hessberg, the teeth on the arm 4 of Hessberg engage teeth on the gear wheel 33. The Examiner interprets the arm 4 of Hessberg to be a flexible force transferring means. Without commenting on the legitimacy of this interpretation, the applicants respectfully note that the arm 4 is not coupled to a lateral facing area of a drive wheel, even if gear wheel 33 were interpreted to be a drive wheel.

New claims 23-28 have been added depending either directly or indirectly from new claim 22. At least because Hessberg does not teach a drive wheel with a flexible force transferring means coupled to a lateral facing area of the drive wheel, new claim 22, and dependent claims 23-28, are allowable over Hessberg.

Conclusion

This application now stands in allowable form and reconsideration and allowance are requested.

Respectfully submitted,

DORSEY & WHITNEY LLP
Customer Number 25763

Date: April 28, 2006

By: David E. Bruhn
David E. Bruhn, Reg. No. 36,762
(612) 340-6317